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**IV**

**A NEW SPECIES OF MOLLUSK (*DENTALIUM*  
*HANNAI*) FROM LOWER CALIFORNIA,  
WITH NOTES ON OTHER FORMS**

BY  
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In the course of a study of the members of the genus *Dentalium* taken in the Gulf of California in 1921 by the Expedition from the California Academy of Sciences certain specimens, found in my own collection and labeled "*Dentalium semipolitum*", seem to belong to a new species. The shells were taken many years ago in a series of dredgings at varying depths by the late Miss J. M. Cooke and myself off the south end of South Coronado Island, Lower California. The location proved to be very rich in mollusks and we took more than a dozen species and a genus (*Bernardina*) which were later described as new by Doctors Dall and Bartsch, chiefly from our material. The dredging was all done in a single afternoon.

The species, on a superficial examination, is very like *D. semipolitum*, which is rather common in this region, and we overlooked the distinctive characters.

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1. *Dentalium hannai* Baker, new species

Plate 10, figures 4, 5

Shell moderately curved, of medium size, very narrow at the apex but increasing rather rapidly at first, less decidedly later; length about 12 times the diameter, translucent, shining, blue-white at the anterior end and becoming slightly creamy on the posterior half; sculpture of the earlier third consisting of 28 fine, sharp, subequal ribs about a third as wide as interspaces, and all continuous, but gradually fading out at about a third of length of shell; growth striæ wavy and irregularly marked throughout; anal aperture, a slit on both convex and concave sides, but shorter and rounded on the latter, sharply pointed on the former; sides of apex grown inward, the slit occupying about a third of the diameter at this point; these inward projection of shell substance can hardly be called "a plug" in the sense that this word is commonly used in Scaphopoda; aperture circular, intersecting the axis at a right angle; peristome thin.

Length 38.5 mm.; diameter of base 3.2 mm.; diameter of apex 0.6 mm.; length of slit, convex side, 1.5 mm., concave side 0.6 mm.

*Type*: No. 1757, Mus. Calif. Acad. Sci., from 10 to 18 fathoms about **one mile south of South Coronado Island, Lower California**; Jeanette M. Cooke and Fred Baker, colls.

The arrangement of sculpture resembles that of *D. semipolatum* B. & S. and *D. inversum* Desh. from the same region, and *D. sectum* Desh. from the Gulf of California, in having longitudinal sculpture on the posterior third, the rest of the shell being smooth. The apical angle is slightly greater than in any of these species, but the most marked difference exists in the anal slit; this is wanting in *semipolatum*; on the concave side only in *inversum*; *sectum* differs radically in that it has a longer and oblique plug with the transverse slit not extending far on either the convex or concave side.

Other smaller specimens than the type are very constant in most of the characters though differing in the proportion of sculptured to smooth parts on account of age.

The species is named for Dr. G. Dallas Hanna, Curator of Paleontology, California Academy of Sciences.

## 2. *Dentalium vallicolens* Raymond

Plate 10, figures 1-3

This species was described in 1904<sup>1</sup> from specimens dredged in relatively deep water off La Jolla, California, and neighboring localities. It is much larger than *D. hannai* and in no specimens seen is there a notch or slit in the apical opening. The species has not been figured until now and this opportunity is taken to publish photographs of three specimens. Two of these (figs. 1, 2) are No. 437 of the Scripps Institution collection from 110 fathoms off La Jolla. These were undoubtedly used by Prof. Raymond in the description of the species; no type material was designated. The third specimen figured came from 120 fathoms off San Diego and has been presented to the California Academy of Sciences where it is No. 1758 (Coll. Type material).

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<sup>1</sup> The Nautilus, Vol. 17, 1904, p. 123.

## PLATE 10

- Figs. 1, 2. *Dentalium vallicolens* Raymond. Plesiotypes, No. 437 (Scripps Institution), from 110 fathoms, off La Jolla, California. Enlarged slightly more than two diameters.
- Fig. 3. *Dentalium vallicolens* Raymond. Plesiotype, No. 1758 (California Academy of Sciences), from 120 fathoms off San Diego. Enlarged slightly more than two diameters.
- Fig. 4. *Dentalium hannai* Baker, new species. Type, No. 1757 (California Academy of Sciences), from 10-18 fathoms off South Coronado Island, Lower California. Enlarged slightly more than two diameters.
- Fig. 5. *Dentalium hannai* Baker, new species. Type specimen; apex; enlarged six diameters.



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